

# **VULNERABLE ROAD USERS AND MOTOR VEHICLES INVOLVED IN CRASHES: APPLICATION TO PORTUGUESE ROAD SAFETY DATA**

**Mariana Vilça**

Dep. Mechanical Engineering  
University of Aveiro, Campus Universitário de Santiago, 3810-193 Aveiro, Portugal  
[mariana.c.vilaca@gmail.com](mailto:mariana.c.vilaca@gmail.com)

**Margarida C. Coelho**

Dep. Mechanical Engineering / Centre for Mechanical Technology and Automation  
University of Aveiro, Campus Universitário de Santiago, 3810-193 Aveiro, Portugal  
[margarida.coelho@ua.pt](mailto:margarida.coelho@ua.pt)

## **MSc. Dissertation**

In the last decades the private vehicle has been the most commonly used transportation mode for daily journeys. This is a National and European trend and it is due to the economic growth and the investments focused on the road infrastructures. Because of that reason, cities have been often organized in terms of planning with especial attention to road vehicles and not well prepared for pedestrians and cyclists. There is a need to change this behavior to a society that privileges the active transportation modes. However, there is the need to ensure the safety of the most vulnerable users.

This Dissertation was focused on analyzing the trends of road crashes involving cyclists and pedestrians and what are the main difficulties that people using active modes face in their daily journeys. In order to reach this objective, crashes registrations involving motor vehicles and vulnerable road users (pedestrians or cyclists) in the city of Aveiro were analyzed (given by the Public Safety Police “PSP” of Aveiro). In relation to accidents involving cyclists, 68% the victims are men; this can be possibly explained because there are more men cyclists than women as was verified in the sample of the survey, but there is a lack of statistics in Aveiro on the gender distribution of cyclists involved in accidents.

In a second stage, a survey was prepared with the objective to understand the main difficulties of the university community who use the active modes in their daily journeys. From the survey it has been pointed out that the main problems found are the lack of drivers’ awareness and weather conditions. The third reason was the lack of dedicate cycle lanes. On the other hand, the main motivations for biking are the reduced cost and the easiness of mobility.

KEYWORDS: Vulnerable road users, cyclists, road accidents.

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